UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

MID-PACIFIC REGION

SOUTH-CENTRAL CALIFORNIA AREA OFFICE
FRESNO, CALIFORNIA

FINDING OF NO SIGNIFICANT IMPACT

TRANSFER OF UP TO 4,400 ACRE-FEET OF CENTRAL VALLEY PROJECT WATER FROM FIREBAUGH CANAL WATER DISTRICT TO SAN LUIS WATER DISTRICT OR WESTLANDS WATER DISTRICT

Central Valley Project
Sacramento, California

FONSI-09-31

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FINDING OF NO SIGNIFICANT IMPACT

Transfer of up to 4,400 acre-feet of Central Valley Project Water from Firebaugh Canal Water District to San Luis Water District or Westlands Water District

In accordance with the National Environment Policy Act (NEPA) of 1969, as amended, the South-Central California Area Office of the U.S. Bureau of Reclamation (Reclamation,) has determined that an environmental impact statement is not required for the approval of a transfer of up to 4,400 acre-feet (af) of Central Valley Project (CVP) water from Firebaugh Canal Water District (FCWD) to San Luis Water District (SLWD) and/or Westlands Water District (WWD). This Finding of No Significant Impact (FONSI) is supported by Reclamation's Environmental Assessment (EA) Number 09-31, *Transfer of up to 4,400 acre-feet of Central Valley Project Water from Firebaugh Canal Water District to San Luis Water District or Westlands Water District,* dated April 2009, and is hereby incorporated by reference.

Reclamation proposes to approve the transfer of up to 4,400 af of FCWD's Exchange Contract CVP supplies to WWD and/or SLWD in April through September. FCWD would pump up to 15 cubic feet per second (cfs) (up to a total of 30 af/day) of groundwater to meet their internal in-district demands in lieu of taking surface water deliveries dedicated to FCWD under the San Joaquin Exchange Contractor's Contract. This water would be discharged into FCWD's Intake Canal and would not be delivered into Mendota Pool. The additional 30 af of water which would be left in the Mendota Pool would be used by Reclamation to meet its other obligations in the Mendota Pool and in exchange 30 af of water would be delivered to SLWD and WWD off of the San Luis Canal.

BACKGROUND

2007, 2008 and 2009 have been dry years in the San Joaquin Valley. In addition, due to Federal Judge Oliver Wanger's Delta Smelt Interim Remedy Order, operation of the Federal Jones Pumping Plant will be limited and further reduce available CVP contract supplies. South of the Delta CVP water service contractors need additional water to supplement their 2009 CVP water supply during a dry year.

The proposed transfer is intended to allow expeditious water delivery so as to assist in offsetting the effects of the critical month allotment plan by increasing the volume of water available to SLWD and/or WWD. This CVP water is needed immediately by SLWD and WWD to meet in-district irrigation demands.

FCWD, an Exchange Contractor, has requested that Reclamation approve the proposed transfer(s). Therefore, Reclamation's purpose of the action is to fulfill its role as Contracting Officer and approve transfer requests.

Reclamation's finding that implementation of the Proposed Action will result in no significant impact to the quality of the human environment is supported by the following findings:

Findings

Water Resources

The transfer of 4,400 af would offset 0.6 through 3.4 percent of the 2009 surface water supply deficit in WWD and SLWD respectively and allow the delivery of surface water during the critical month allotment plan for the months of April through September 2009. The water transfer would be a minor offset to the surface water reductions in SLWD and WWD.

Water supplies in FCWD would continue to meet agricultural water demand despite the transfer. FCWD would pump an equivalent amount to offset surface water deliveries. This transfer would be required to be in compliance with FCWD's transfer policy and maintain the balance in the groundwater basin. The pumping for transfer equates to 2.7 percent of the ten-year average Exchange Contractor groundwater pumping. The FCWD groundwater pumping may be offset by a reduction in groundwater pumping in the recipient water districts where groundwater overdraft is not under control.

The 4,400 af of low quality groundwater pumped into the FCWD's distribution system has been calculated to change the TDS in FCWD's Intake Canal by no more than 30 mg/L. This water quality impact is within the normal water quality fluctuation in the canal system due to Delta pumping tidal influences and other influences.

Under the Proposed Action FCWD would have sufficient water supplies to meet their water demands. CVP and California State Water Project (SWP) facilities would not be impacted as the transferred water must be scheduled and approved by Reclamation and DWR. No natural streams or water courses would be affected since no additional pumping or diversion would occur. There would be no impact to surface or groundwater water resources due to the Proposed Action.

Land Use

Under the Proposed Action the 4,400 af of additional water delivered to SLWD and/or WWD would offset between one and five percent of the surface water delivery deficit and allow water supplies to be delivered to SLWD and/or WWD during the critical month allotment plan during April through September 2009. Land fallowing is still expected due to the severity of the water shortage, however the infusion of 4,400 af of additional water supplies would preserve some row crops or orchards that might otherwise have been abandoned.

There would be no land use changes in FCWD as their water supply is not changing.

There would be a slight positive impact on land use in SLWD and/or WWD due to the ability of some established row crops to remain in production and the enhanced survival of orchards.

Biological Resources

Most of the habitat types required by species protected by the ESA do not occur in the project area. The Proposed Action would not involve the conversion of any land fallowed and untilled for three or more years. The Proposed Action also would not change the land use patterns of the cultivated or fallowed fields that do have some value to listed species or birds protected by the Migratory Bird Treaty Act (MBTA). Since no natural stream courses or additional surface water pumping would occur, there would be no effects on listed fish species. No critical habitat occurs within the area affected by the Proposed Action and so none of the primary constituent elements of any critical habitat would be affected.

The short duration of the water availability, the requirement that no native lands be converted without consultation with the FWS, and the stringent requirements for transfers under applicable laws would preclude any impacts to wildlife, whether federally listed or not.

Air Quality

The two of the wells that would be pumped have electric motors and the other two have the latest tier three diesel engines. These low emission engines would not reach the de minimis threshold and therefore a conformity analysis is not required under the Clean Air Act and there would be a slight impact on air quality.

Cultural Resources

Transferring water as described in the Proposed Action would not result in impacts to archeological or cultural resources. These lands are agricultural lands that have undergone cultivation and land disturbance for more than 20 years. Reclamation determined that there was no potential effect to cultural resources.

Indian Trust Assets

There are no tribes possessing legal property interests held in trust by the United States in the water involved with this action, nor is there such a property interest in the lands designated to receive the water proposed in this action. There are no ITAs, Indian Reservations, or public domain allotments found within the water districts involved.

Socioeconomic Resources

The Proposed Action would allow for continued water deliveries to SLWD and WWD and would maintain the stability of the agricultural market and economical vitality for the San Joaquin Valley to some degree. The proposed transfer would not interfere with State Water Project or CVP priorities or operations.

The water service transactions are temporary actions and would not result in long-term increases in water supplies that would encourage urbanization or construction.

Environmental Justice

The Proposed Action would not cause dislocation, changes in employment, or increase flood, drought, or disease. The Proposed Action would not disproportionately impact economically disadvantaged or minority populations. Some amount of agricultural production that would not be sustained with the current water availability would continue with the resulting preservation of jobs. The unemployment rate in the vicinity of SLWD and WWD suggests that any actions that maintain seasonal jobs should be considered beneficial. Employment opportunities for low-income wage earners and minority population groups would be within historical conditions. Disadvantaged populations would not be subject to disproportionate impacts.

Cumulative Effects

Additional transfers to SLWD and WWD are under development. Transfers in this dry year will not provide sufficient water to meet the full irrigation demand in these districts. Therefore there will be no adverse cumulative impact of additional transfers in or groundwater deliveries via Warren Act contract on land uses, biological resources, or socioeconomics. Since there was no impact to cultural resources or ITAs there is no cumulative impacts to these resources. The pump in project is under the de minimis standard for federal agencies under the CAA so again there are no cumulative impacts to air quality.

The Exchange Contractors have committed to a policy of no net depletion of groundwater over the next ten years. Based on a review of groundwater levels over the past ten years, no net substantial

change in groundwater storage has occurred within the Exchange Contractors service area. Given the small amount of the increase, the pumping component of the proposed program would likely have little or no direct effect on groundwater levels or flow patterns within the source area over the 25-year duration of the various Exchange Contractor programs. Furthermore, ongoing groundwater monitoring would detect any negative impacts that FCWD pumping may have on nearby wells or the depth to water. These impacts are prohibited under the FCWD's 1993 transfer policies. The cumulative impact of groundwater pumping is minimal.

The proposed transfer, when added to other actions, would not contribute to significant increases or decreases in environmental conditions. These water service actions would be temporary lasting only through September 2008. The Proposed Action was found to have no impact on water resources, biological resources, cultural resources, ITAs, and socioeconomics and therefore there is no contribution to cumulative impacts on these resources areas. Slight beneficial impacts to land use and environmental justice are within the historical variations and would not contribute to cumulative impacts. Overall there would be no cumulative impacts caused by the Proposed Action.

RECLAMATION

Managing Water in the West

Draft Environmental Assessment

Transfer of up to 4,400 acre-feet of Central Valley Project Water from Firebaugh Canal Water District to San Luis Water District or Westlands Water District

EA-09-31

U.S. Department of the Interior
Bureau of Reclamation
Mid Pacific Region
South Central California Area Office
Fresno, California

April 2009

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Table of Contents

Page

List of Acronyms, Abbreviations and Definition of Terms

af	acre-feet (the volume of water one foot deep and an acre in area)
af/y	acre-feet per year
CCID	Central California Irrigation District
Contract Year	March 1, 2009 through February 28, 2009
CVP	Central Valley Project
CVPIA	Central Valley Improvement Act
CWA	Clean Water Act
DD#1	Priority Area I
DD#2	Priority Area II
DMC	Delta-Mendota Canal
DSA	Direct service area
DWR	California State Department of Water Resources
EA	Environmental Assessment
ESA	Endangered Species Act
FCWD	Firebaugh Canal Water District
FWCA	Fish & Wildlife Coordination Act
FWS	Fish and Wildlife Service
ITA	Indian Trust Assets
Jones	Jones Pumping Plant
M&I	municipal and industrial
MBTA	Migratory Bird Treaty Act
Mendota WA	Mendota Wildlife Area
mg/l	milligrams per liter
MOU	Memorandum of Understanding
MSWD	Mercy Springs Water District
NAAQS	National Ambient Air Quality Standards
NHPA	National Historic Preservation Act
Reclamation	Bureau of Reclamation
SIP	State Implementation Plan
SJR	San Joaquin River
SJV	San Joaquin Valley
SLC	San Luis Canal
SLCC	San Luis Canal Company
SLR	San Luis Reservoir
SLWD	San Luis Water District
SOD	South of the Delta
SWP	California State Water Project
TDS	Total dissolved solids
EPA	Environmental Protection Agency
WWD	Westlands Water District

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Section 1 Purpose and Need for Action

1.1 Background

The State of California is currently experiencing unprecedented water management challenges during a third year of drought. Both the State and Federal water projects are forecasting very low storage conditions in all major reservoirs. Specifically for the Central Valley Project (CVP), additional factors have contributed to the reduction in total water supplies this year. These include: 1) low reservoir water supply conditions coming into 2009 from a dry 2007and 2008, and 2) limits placed on pumping at Jones Pumping Plant for purposes of meeting court-ordered delta smelt protections. Based on all these factors, the Bureau of Reclamation (Reclamation) declared a shortage in the amount of water available to South of Delta (SOD) contractors for the 2009 Contract Year (March 1 through February 28).

As a further result of the continuing dry conditions, CVP reservoir storage is a critical water management concern going into the 2009 summer demand season. For SOD contractors, Reclamation relies heavily on water stored in San Luis Reservoir (SLR) to supply water to contractors during the summer. Based on Reclamation's forecast of CVP operations and the limiting factors outlined above, the amount of water able to be pumped and the amount of water existing in SLR represents a significant limitation to available water supplies for delivery in the months of June through September 2009. Without immediate action, Reclamation had concerns that SLR would reach a critical water supply low point before the end of the summer to the detriment of the Federal water contractors.

Due to the continuing dry conditions, which have resulted in CVP contract allocations being zero percent of contract totals, San Luis Water District (SLWD) and Westlands Water District (WWD) are in desperate need of additional water supplies.

Reclamation reviews and approves water transfers to ensure that the water transfer meets applicable Federal and State laws, including policies and procedures governing transfer of CVP surface supplies and, in particular, the Central Valley Project Improvement Act of 1992, Section 3405 (CVPIA).

1.2 Purpose and Need

The years 2007, 2008 and 2009 have all been dry. In addition, due to the Biological Opinion for the Continued Long-term Operation of the CVP and State Water Project (SWP) issued by the U.S. Fish and Wildlife Service on December 15, 2008, operation of the Federal Jones Pumping Plant would be limited and further reduce available CVP contract supplies. SOD CVP water service contractors need additional water since there will be no 2009 CVP surface water deliveries to supplement their 2009 CVP water supply.

This proposed transfer is intended to allow water delivery in an expeditious manner so as to assist in offsetting the effects of the lack of 2009 CVP deliveries by increasing the volume of water available to SLWD and/or WWD. The Firebaugh Canal Water District (FCWD) is delivering the water from this transfer to landowners that own property both in FCWD and SLWD and/or WWD; therefore supplying water to their own multi-water district landowners. This CVP water is needed immediately by SLWD and/or WWD to meet in-district irrigation demands.

FCWD, a San Joaquin River Exchange Contractor (Exchange Contractor), has requested that Reclamation approve the proposed transfer(s). Therefore, Reclamation's purpose of the action is to fulfill its role as Contracting Officer and approve transfer requests.

1.3 Scope

The areas in which impacts may occur are the CVP service area boundaries of FCWD, WWD and SLWD. The water would be leaving FCWD and be applied in either SLWD, WWD or both. (See Figure 1 for a map of the action area.) Additionally this environmental assessment (EA) includes potential impacts to the Delta-Mendota Canal (DMC), Mendota Pool and the San Luis Canal (SLC.)

The potential transfer occurs from April through September 2009 and therefore this will be the study period for evaluating the direct effects.

1.4 Potential Issues

Potentially affected resources in the project vicinity include:

- Surface Water Resources
- Groundwater Resources
- Land use
- Biological Resources
- Air Quality
- Cultural Resources
- Indian Trust Assets
- Socioeconomic Resources
- Environmental Justice

1.5 Authorities for the Proposed Action

The transfer analyzed in this EA is subject to the following contracting authorities and guidelines as amended and updated and/or superseded:

- Title XXXIV Central Valley Project Improvement Act, October 30, 1992, Section 3405 (a)
- Reclamation Reform Act, October 12, 1982
- Reclamation's Interim Guidelines for Implementation of Water Transfers under Title XXXIV of Public Law 102-575 (Water Transfer), February 25, 1993
- Reclamation and United States Fish and Wildlife Service (FWS) Regional, Final Administrative Proposal on Water Transfers April 16,1998
- Reclamation's Mid-Pacific Regional Director's Letter entitled "*Delegation of Regional Functional Responsibilities to the Central Valley Project (CVP) Area Offices - Water Transfers*", March 17, 2009

1.6 Other Related Environmental Analyses

- *EIS/EIR Water Transfer Program for the San Joaquin River Exchange Contractors Water Authority 2005–2014, dated December 2004.* In December 2004, Reclamation and the Exchange Contractors completed a Final Environmental Impact Statement/Environmental Impact Report (Final EIS/EIR)

on a water transfer program for up to 130,000 acre-feet (af) for water service years 2005-2014 involving the entire Exchange Contractors' service area (240,000 acres). This water transfer program developed the water primarily from conservation measures and tailwater recovery, but also from groundwater pumping and temporary land fallowing. It made the water available for transfer to other CVP contractors, the San Joaquin Valley (SJV) wildlife refuges, and the Environmental Water Account. (Reclamation 2004)

- *Groundwater Pumping/Water Transfer Project for 25 Consecutive Years Environmental Assessment/Initial Study SCH# 2007072012*; November 30, 2007 Under this project, the primary method for developing the water is localized groundwater pumping and the primary purpose was to alleviate drainage impacts in Central California Irrigation District (CCID) and FCWD. Furthermore, an additional purpose for the project is to develop a water supply for transfer that would provide funding for managing shallow groundwater levels within a portion of the Exchange Contractors' service area and implementation of capital improvements. Only drainage-impaired areas of approximately 28,000 acres within the two districts would be involved in water development. The application of the pumped groundwater to FCWD agricultural lands frees up commensurate surface water supplies for use by other CVP contractors as a transfer. None of the transfer water is proposed for other Federal uses such as the SJV wildlife refuges or the Environmental Water Account considered in the 2005-2014 transfer program. The transfer water for this program would be used by San Luis Unit (West San Joaquin Division) contractors and Santa Clara Valley Water District (San Felipe Division). FCWD's participation is up to 10,000 af, on an annual basis. (Reclamation 2007)

1.7 Public Involvement

The EA was posted for public comment on Reclamation's website on March 31, 2009 and a press release was issued on that date. The EA was available for comment for an 11 day period ending on April 10, 2009. No comments were received.

Section 2 Alternatives Including the Proposed Action

2.1 No Action

Under the No Action Alternative, Reclamation would not approve the transfer of up to 4,400 acre-feet (af) from FCWD to SLWD and/or WWD in the months of April through September 2009.

2.2 Proposed Action

Reclamation proposes to approve the transfer of up to 4,400 af of FCWD's Exchange Contract CVP supplies to WWD and/or SLWD between April and September 2009. FCWD would pump up to 15 cubic- feet per second (cfs) (up to a total of 30 af/day) of groundwater to meet their in-district demands in lieu of taking surface water deliveries dedicated to FCWD under the San Joaquin Exchange Contractor's contract. This water would be discharged into FCWD's Intake Canal and would not be delivered into Mendota Pool. The additional 30 af/day of water which would be left in the Mendota Pool would be used by Reclamation to meet its other obligations in the Mendota Pool and in exchange 30 af/day of water would be delivered to SLWD and WWD from the SLC.

No native or untilled land (fallow for three years or more) may be cultivated with CVP water involved in these actions.

No new construction or modification of existing facilities is to occur in order to complete the Proposed Action.

Transfers and exchanges involving CVP water cannot alter the flow regime of natural waterways or natural watercourses such as rivers, streams, creeks, ponds, pools, wetlands, etc., so as to have a detrimental effect on fish or wildlife or their habitats.

All transfers and exchanges involving CVP water must comply with all applicable Federal, State and local laws, regulations, permits, guidelines and policies.

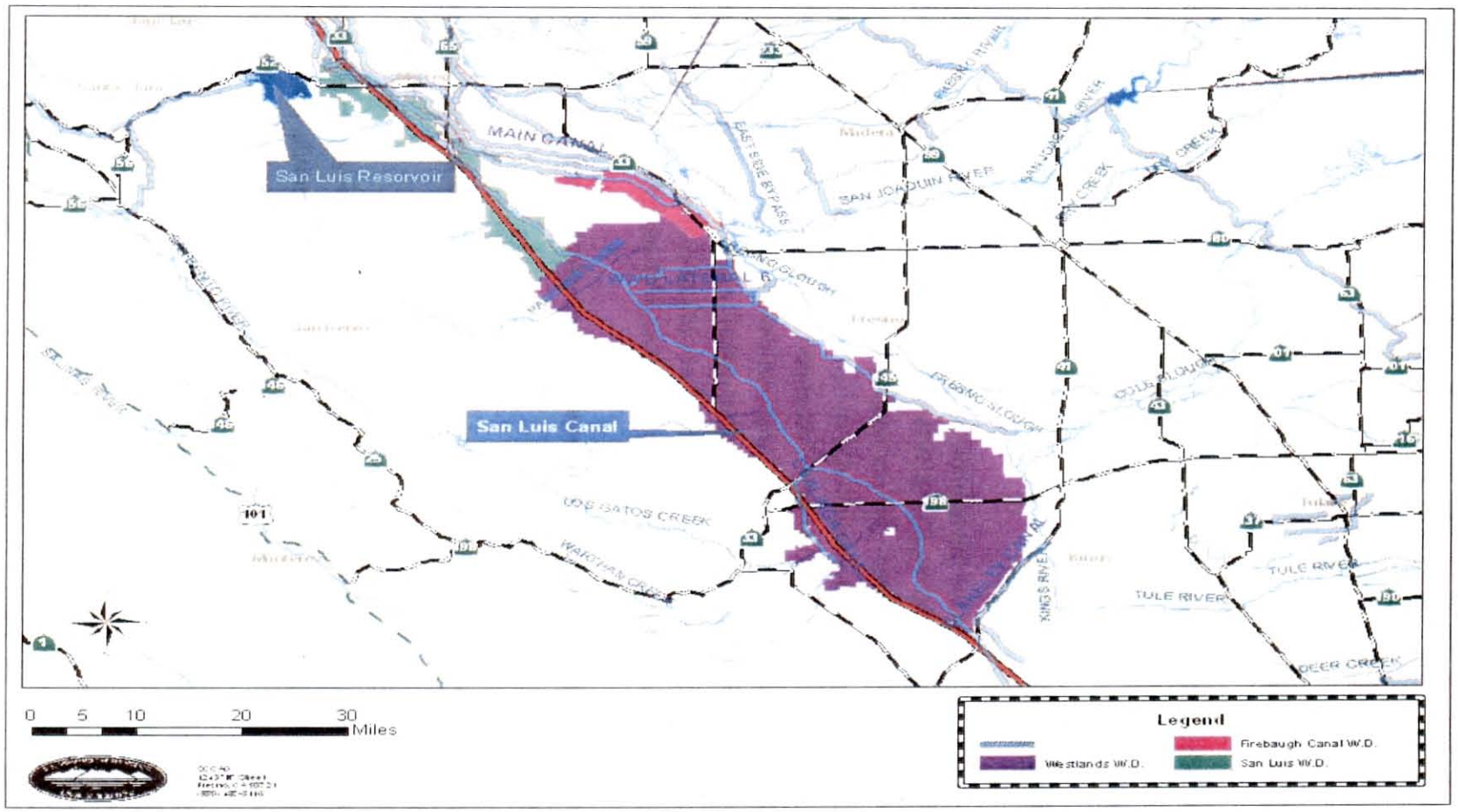

Figure 1 Project Area

Figure 2 Location of FCWD Wells Which Will Pump Up To 15 cfs/day

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Section 3 Affected Environment and Environmental Consequences

3.1 Water Resources

3.1.1 Affected Environment

Surface Water

The ten-year average allocation of SOD CVP water supplies delivered to the water contractors is described in Table 1. It lists maximum deliveries of CVP water on a yearly basis for agricultural purposes from 1999 through 2009. The ten-year average is 67 percent of contract total for agriculture. The annual contract entitlement for SLWD is 125,080 af, thus the average CVP supply (125,080 af x 0.67) is 83,804 af. With a 2009 allocation of zero percent SLWD is 83,804 af below the typical supply levels.

The annual contract entitlement for WWD is 1,150,000 af, thus the average CVP supply is 770,500 af. With a 2009 allocation of zero percent WWD is 770,500 af below the typical supply levels.

Table 1 Average SOD Agricultural Allocation (as Percentage of Contract Total)

Year	Allocation
09-10	**0***
08 – 09	40
07 – 08	50
06 – 07	100
05 – 06	85
04 – 05	70
03 – 04	75
02 – 03	70
01 – 02	49
00 – 01	65
99 - 00	70
Average	**67%***

(* The 09-10 zero percent allocation was not included in the average as it is an outlier in the historic allocation pattern and would skew the data.)

Refined allocation determinations will be made throughout the contract year to align the allocation with the hydrologic conditions and pumping capabilities and therefore the 2009 allocation may increase if there are additional rain and snow events. SLWD and WWD are likely to be in a severe water deficit even if there is an increased allocation.

San Joaquin River Exchange Contractors

The Exchange Contractors, which include CCID, FCWD, San Luis Canal Company and Columbia Canal Company, hold historic water rights to water in the San Joaquin River (SJR). Their service area is located on the west side of the SJV. In exchange for the CVP's regulation and diversion of the SJR at Millerton Lake (Friant Division), Reclamation agreed to supply water to the Exchange Contractors from the CVP's Delta supply.

Reclamation and the Exchange Contractors are parties to the Second Amendatory Contract for Exchange of Waters, Contract No. 11r-1144 (Contract), dated February 14, 1968, and incorporated by reference into this EA/Initial Study. Under the Contract, the United States supplies the Exchange Contractors with a substitute supply of CVP water to be used in lieu of their rights to certain waters of the SJR. Pursuant to the terms of the Contract, up to 840,000 af of substitute CVP water per year is made available for irrigation purposes by Reclamation from the Sacramento River and the Delta, and other sources through the CVP, and up to 650,000 af in critical dry years. The Exchange Contractors' operations consist of the diversion of substitute water from the DMC, the Mendota Pool, and possibly the SJR and north fork of the Kings River.

The Exchange Contractors provide water deliveries to over 240,000 acres of irrigable land on the west side of the SJV, spanning a distance roughly from the town of Mendota in the south to the town of Crows Landing in the north. The four entities of the Exchange Contractors each have separate conveyance and delivery systems operated independently, although integrated within a single operation for performance under the exchange contract.

In certain circumstances, groundwater is used to supplement the Exchange Contractors' CVP substitute water supply and to provide delivery capacity. Groundwater is also being used to improve the operational control of the distribution systems. Currently, the Exchange Contractors have an active program to capture tailwater and redirect it to distribution canals.

Firebaugh Canal Water District

FCWD's annual water supply is 85,000 af in a non-critical year. The district historically utilizes all of its annual contract supply. In a critical water year, which is based on the Shasta Lake Inflow Index criteria, the district realizes a 23 percent reduction in its annual water supply. The year 2009 was originally designated a critical year; however, recent storms have brought the Shasta Index out of the critical range and therefore FCWD's water supplied by the CVP via the delta will be 85,000 af.

FCWD's Water Transfer Policies FCWD has adopted water transfer policies which were adopted on March 11, 1993 and state the conditions that water transfers out of FCWD must adhere to. FCWD's policy is summarized below.

FCWD Directors must approve all water transfers according to the following principles:

- No transfer of more than 20 percent of FCWD's water supply subject to contract with Reclamation shall be approved without FCWD approval or conditioned approval.
- No water transfer will be approved if a substitution of groundwater is likely to result in significant long-term adverse impacts on groundwater conditions within FCWD's service area, or in unreasonable interference with pumping rates or capacities of wells within the FCWD's service area.
- No water transfer will be approved that involves groundwater pumping in critical water years.
- Before FCWD approval, the transferee must conduct a water conservation program in compliance with the urban water management plan and Water Code Sections 10610, et seq., and 10656 or an agricultural management plan adopted pursuant to Water Code Sections 10800 et seq., and a drainage program must be approved which will not cause a deleterious affect on lands downslope of any irrigated lands impacted by the transfer.
- Public hearings may be held to determine compliance with CEQA, impacts of the proposed transfer on water supply, operations, and financial conditions of FCWD and its water users. (Reclamation 2004)

Other FCWD Transfers Planned in 2009 Under the ten- year program, FCWD will free up the CVP water via fallowing approximately 2,800 acres of land, transferring up to 7,000 af to WWD, SLWD, Panoche Water District and Pacheco Water District.

Under the 25-year program, in 2009 FCWD will pump 3,000 af from shallow wells located over 15 miles from the wells considered in the Proposed Action. There are no grower wells in the area proposed for the shallow pumping under the Proposed Action.

San Luis Water District

On February 25, 1959, SLWD entered into a long-term water service contract with Reclamation and a subsequent amendatory contract on June 18, 1974, which has an annual allocation of CVP water of up to 125,080 af/year (af/y). Recently, due to the expiration of the original long-term contract, SLWD signed an interim contract. This contract was effective January 1, 2009 with a term of up to 26 months.

SLWD's water needs are 120,000 af/y. SLWD does not currently maintain detailed records regarding irrigation methods, however, because of the area's hilly terrain and rolling topography, sprinkler irrigation continues to be used quite extensively. It is estimated that sprinklers may be used on approximately 60 percent of the irrigated acreage. During the past ten years, a shift to both drip and micro irrigation systems has paralleled the conversion from row crops to permanent crops (i.e., orchards and vineyards). Drip or micro irrigation systems are currently used on approximately 23 percent of the irrigated acreage. Use of these systems is expected to increase proportionally to the shift to permanent crops.

Westlands Water District

On June 5, 1963, WWD entered into a long-term contract (Contract 14-06-200-495-A) with Reclamation for 1,008,000 af of CVP supply from the SLC, Coalinga Canal, and Mendota Pool. The first deliveries of CVP water from the SLC to WWD began in 1968. In a stipulated agreement dated September 14, 1981, the contractual entitlement to CVP water was increased to 1.15 million af. The long-term contracts for WWD expired on December 31, 2007, however interim contracts have been executed for interim contract renewal for the San Luis Unit contractors. (Reclamation 2007a)

When WWD was originally organized, it included approximately 376,000 acres. In 1963, WWD contracted with the federal government for long-term water service providing for 40 years of water service. In 1965, WWD merged with its western neighbor, Westplains Water Storage District, adding 210,000 acres. Additionally, lands comprising about 18,000 acres were annexed to WWD after the merger to form 604,000 acres. WWD has recently purchased 9,100 acres of lands previously owned by Broadview Water District to form the current 613,100 acre boundary. The 1963 water service contract terminated in 2007 and interim contracts have been executed.

The original WWD is referred to as Priority Area I (or DD#1) and the Westplains area is referred to as Priority Area II (DD#2). Priority Area I land has a contract amount of 900,000 af (approximately 2.6 af/acre) of CVP water annually, while Priority Area II has a contract amount of 250,000 af (approximately 1.3 af/acre) of CVP water annually.

Priority Area III (DD#3) is land added to WWD after the merger and has no established water allocation. Priority Area III receives CVP water only if water is available after the needs in Areas I and II are satisfied or if surplus water is available. The 9,100 acres acquired from the purchase of lands from Broadview Water District are in Priority Area III. (Reclamation 2007a)

WWD annual contract amount is subject to shortages caused by drought, legislative, environmental, and regulatory actions such as the CVPIA, the Endangered Species Act (ESA), and Bay/Delta water quality actions. The contract number for the 900,000 af contract in Priority Area I is 14-06-200-495A. The contract for the 250,000 af in Priority Area II was awarded to WWD per the December 21, 1986 Barcellos Judgement. WWD receives the majority of its CVP water supply via the SLC. Barcellos allowed for the delivery of up to 50,000 af of Priority Area II water via the DMC. (Reclamation 2007a) On December 31, 2007 these two contracts expired and as of January 1, 2008, were renewed for a period not to exceed 26 months and consolidated into one interim contract.

WWD has executed three full or partial CVP contract assignments from DMC contractors over the last decade. These assignments went to DD#1. WWD requested and received approval from Reclamation on the contract assignments of 27,000 af/y from Broadview Water District (Contract Number14-06-200-8092-IR8), 2,990 af/y from Widren Water District (Contract Number 14-06-200-8018-1R7) and 2,500 af/y from Centinella Water District (Contract Number 7-07-20-W0055). The Widren, Centinella and Broadview contract assignments help to reduce groundwater overdraft and subsidence within WWD and alleviated poor quality discharges to the SJR. WWD has been acquiring these assignments to alleviate the recent reduction in water supplies due to environmental water needs in the Sacramento and San Joaquin River Delta. (Reclamation 2007a)

Additionally, on March 1, 2003, Reclamation approved a second partial contract assignment of 4,198 af/y from Mercy Springs Water District (MSWD) (Contract Number 14-06-200-3365A) to DD#2. The partial contract assignment involved the change in delivery of water to land historically owned and farmed by Donald Devine, David E. Wood, and their affiliated entities, (Devine and Wood) in MSWD to Devine and Wood lands in WWD. This action reduced landowner reliance on the use of transfers and groundwater to meet their crop water demands and maximized the economic benefit of this water by delivering it to Devine and Wood lands in WWD. (Reclamation 2007a)

In 1999, Reclamation stated that the estimated average long-term supply for WWD was 70 percent of its water supply contract, or about 805,000 af/y. Prior to 1990, its average CVP water supply, including interim CVP water when it was available, was

approximately 1,250,000 af/y. The total maximum additional water supply provided from the four assignments to WWD is 32,490 af. The likely long-term average deliveries for this assigned water is 22,743 af/y (as above, this is approximately 70 percent of the contract total). Therefore current average long-term CVP water supply deliveries of 827,743 af/y to WWD are still below the average deliveries prior to 1990. (Reclamation 2007a)

WWD has an on-going program to purchase and transfer supplemental water from other sources that would allow a better determination of the water supply sooner in the water year. Unlike water agencies with more abundant supplies, WWD must allocate (ration) water to its farmers, even in the wettest years. Average total demand for WWD is approximately 1,394,000 af/y. With its annual CVP contract entitlement of 1,150,000 af/y, and an annual safe yield available from groundwater pumping of approximately 135,000 to 200,000 af/y, the total water supply available from a full CVP contract supply and from groundwater is still less than the total water needed. With future CVP water deliveries estimated at 65-70 percent of the contract amount or less, WWD and individual landowners must obtain supplemental water to help make up for this deficiency.

Additionally, water users in WWD must commit to the purchase of supplemental water early in the water year. They do not know what the final price will be. Therefore, they limit their requests for supplemental water and hope that CVP allocations and the pumping of groundwater will meet the balance of their crop water needs for the year.

The acquisition of portions or all of the CVP contract assignments as part of WWD's annual base supply reduces the need for purchase of water from the spot market, reduces the use of poorer quality groundwater, and provides supplemental water at a cost water users in WWD can afford. To the extent that groundwater production can be reduced to the annual safe yield of the basin, overdraft conditions below WWD can be stabilized. It is also important to stabilize subsidence in this region to prevent damage to structures placed upon the land and to maintain the health of the aquifer.

The acquisition of long-term water supplies reduces the need for annual spot market acquisitions and helps to increase WWD's base supply. Stabilization of the base supply helps to reduce the potentially large annual swings in CVP contract supplies. These purchases also help to increase the beneficial use of scarce CVP contract supplies by using CVP water on high quality land that can support high value and more labor-intensive crops. This circumstance helps to stabilize or potentially improve the economic base of the region. (Reclamation 2007a)

Mendota Pool

Mendota Pool is a re-regulating reservoir for more than 1 million af of CVP water pumped from the Delta and delivered by the DMC. The Mendota Pool is impounded by Mendota Dam, which is owned and operated by CCID. Currently, Mendota Pool is sustained by the inflow from the DMC, which typically conveys 2,500 to 3,000 cfs to the Mendota Pool during the irrigation season. SJR water is only conveyed to the Mendota Pool during periods of flood flow. Mendota Pool extends over 5 miles up the SJR Channel and over 10 miles into Fresno Slough and varies from less than one hundred to several hundred feet wide. Water depth varies but averages about 4 feet. Mendota Pool contains approximately 8,000 af of water and has a surface area of approximately 2,000 acres when full. It is the largest body of ponded water in the SJV basin floor.

The Mendota Pool is located at the confluence of the SJR and Fresno Slough. The Mendota Pool receives water from the SJR, the Delta via the DMC, groundwater pumping from the Mendota Pool Pumpers, and intermittently from the Kings River drainage in the south via the James Bypass into Fresno Slough. Water from the Mendota Pool is diverted for a variety of agricultural, municipal, and habitat management uses. Mendota Wildlife Area (Mendota WA) receives water from the Mendota Pool via Fresno Slough, which is managed by CCID as a water conveyance facility. Gates and pumps divert water from Fresno Slough to Mendota WA.

In addition to Mendota WA, several CVP Settlement Contractors and Exchange Contractors rely on Mendota Pool for water deliveries.

Water quality conditions in the Mendota Pool depend on inflows from the DMC, groundwater pumped into Mendota Pool by the Mendota Pool Group and, to a limited extent and mainly in wet years, SJR inflows (See Figure 3). Water quality in the SJR varies considerably along the river's length. Above Millerton Lake and downstream towards Mendota Pool the quality of water in the SJR and released from Friant Dam is generally excellent. The reach from Gravelly Ford to Mendota Pool (about 17 miles) is perennially dry except during flood control releases from Friant Dam. During the irrigation season, most of the water released from the Mendota Pool to the SJR and to irrigators is imported from the Delta via the DMC. This water has higher concentrations of total dissolved solids (TDS) than water in the upper reaches of the SJR, and might be affected by runoff and seepage into the canal.

Panoche Creek, an ephemeral stream, also flows into Mendota Pool and, during high flows in the winter and spring, high concentrations of selenium have been brought into Mendota Pool via Panoche Creek flows.

An additional source of water in Mendota Pool is from adjacent land owners pumping well water into Mendota Pool and taking delivery of it in a more convenient location, at convenient timing (but within 60 days of pumping in) and at differing water quality. In 2007, these adjacent landowners pumped 7,423 af into Mendota Pool.

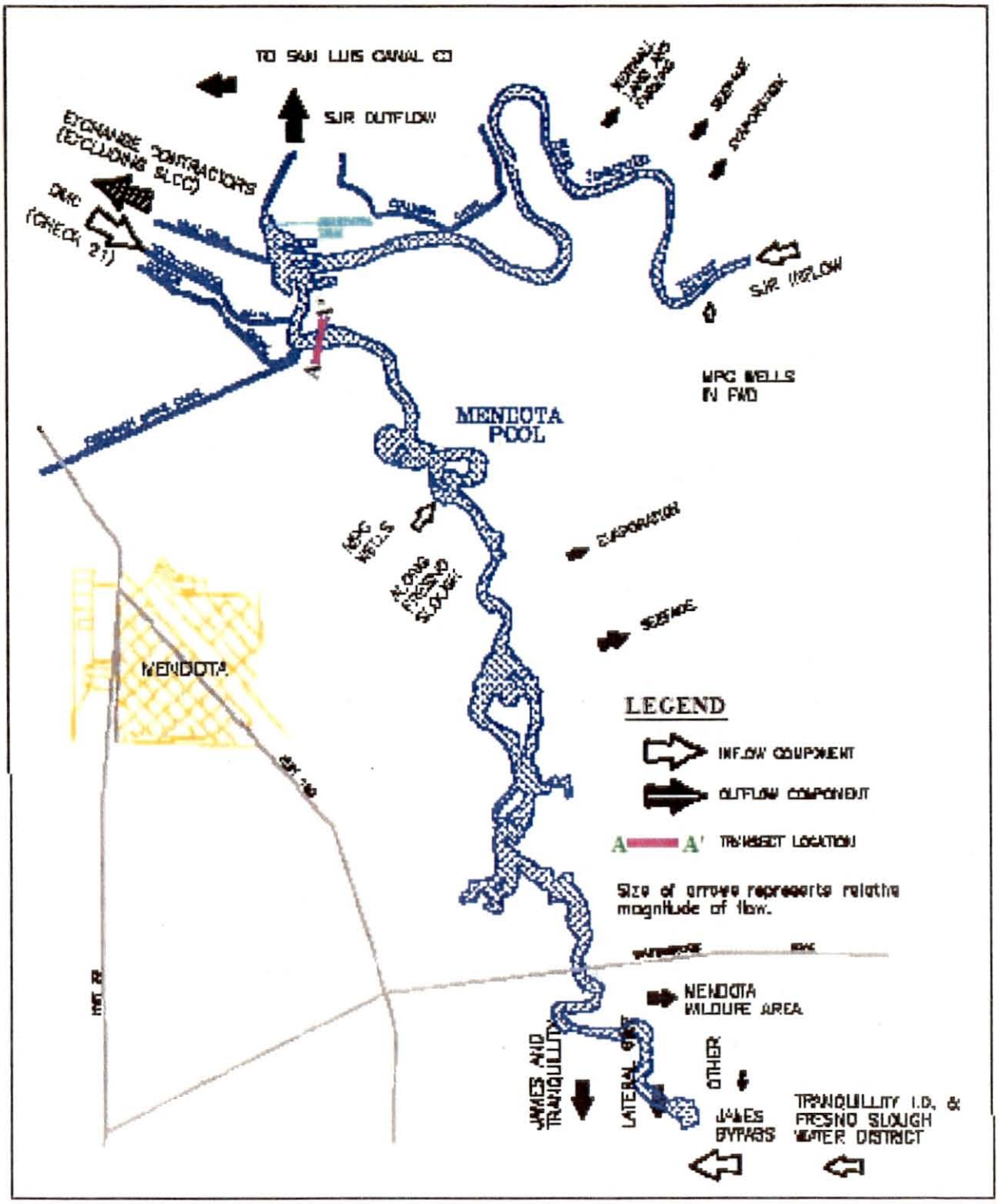

Figure 3 Mendota Pool Inflow and Outflow

Delta Division

The Delta Division provides for the transport of water through the central portion of the Central Valley, including the Sacramento-San Joaquin Delta. The main features of the division are the Delta Cross Channel, Contra Costa Canal, Jones Pumping Plant, and the DMC, constructed and operated by Reclamation or its designed operating entity. This system provides full and supplemental water, as well as temporary water service, for a total of about 380,000 acres of farmland.

The Jones Pumping Plant (Jones) consists of an inlet channel, pumping plant, and discharge pipes. Water in the Delta is lifted 197 feet into the DMC. Each of the six pumps at Jones is powered by a 22,500-horsepower motor and is capable of pumping 767 cfs. Power to run the huge pumps is supplied by CVP power plants. The water is pumped through three 15-foot-diameter discharge pipes and carried about one mile up to the DMC. The intake canal includes the Tracy Fish Screen, which was built to intercept downstream fish so they may be returned to the main channel to resume their journey to the ocean.

The DMC carries water southeasterly from the Jones along the west side of the SJV for irrigation supply, for use in the San Luis Unit, and to replace SJR water stored at Friant Dam and used in the Friant-Kern and Madera canal systems. The canal is about 117 miles long and terminates at the Mendota Pool, about 30 miles west of Fresno. The initial diversion capacity is 4,600 cfs, which is gradually decreased to 3,211 cfs at the terminus.

Groundwater

According to the California Department of Water Resources (DWR) Bulletin 118 (DWR 2003), groundwater provides approximately 30 percent of the total supply for the San Joaquin River Hydrologic Region. However, the amount of groundwater use within the region varies widely, both between different areas and from one year to the next. In WWD for example, groundwater has accounted for between 5 and 60 percent of total supply over the last 15 years, while in the Exchange Contractors' service area groundwater supplies have accounted for between 10 and 40 percent of the total over the last 10 years.

Two primary hydrologic divisions of the SJV are agreed upon by DWR, the State Board, and the U.S. Geological Survey. The San Joaquin hydrologic study area comprises the northern one-third of the valley, encompasses 3,800 square miles, and includes San Joaquin, Stanislaus, Merced, and Madera counties. The Tulare Lake hydrologic study area comprises the southern two-thirds of the valley and encompasses 7,900 square miles.

From: Jonathan Connolly
To: Tapia, Judi
Date: 3/26/2009 10:25:22 AM
Subject: Re: Cultural Resources Review Please - EA-09-31

Project No. 09-SCAO-141

Judi:

I have reviewed the EA for the Transfer of up to 4,400 acre-feet of Central Valley Project Water from Firebaugh Canal Water District to San Luis Water District or Westlands Water District. Both the No Action and Proposed Action alternatives have no potential to affect historic properties pursuant to 36 CFR Part 800.3(a)(1).

Reclamation proposes to approve the transfer of up to 4,400 af of Firebaugh Canal Water District's (FCWD) Exchange Contract CVP supplies to Westlands Water District (WWD) and/or San Luis Water District (SLWD) in April through September 2009. FCWD would pump up to 15 cubic feet per second (cfs) (up to a total of 30 af/day) of groundwater to meet their internal in-district demands in lieu of taking surface water deliveries dedicated to FCWD under the San Joaquin Exchange Contractor's contract. This water would be discharged into FCWD's Intake Canal and would not be delivered into Mendota Pool. The additional 30 af/day of water which would be left in the Mendota Pool would be used by Reclamation to meet its other obligations in the Mendota Pool and in exchange 30 af/day of water would be delivered to SLWD and WWD off of the San Luis Canal (SLC).

This action will not result in new construction or modification of existing facilities, nor will it allow new or untilled lands to come into agricultural production; therefore, there will be no affect to historic properties.

I have made some minor edits to the draft EA and attached the edited EA to this email. Please incorporate these edits into the document before going to public comment.

This concludes the section 106 process for this undertaking please retain a copy of this email with the project file. Thank you for providing the opportunity to comment.

Sincerely,

Jonathan D. Connolly, M.A., RPA
Archaeologist
U.S. Bureau of Reclamation
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From: Patricia Rivera
To: Tapia, Judi
Date: 4/13/2009 10:49:23 AM
Subject: Re: ITA Review of Transfer of up to 4,400 acre-feet of Central Valley Project Water from Firebaugh Canal

Judi,

I reviewed the proposed action to approve the transfer of up to 4,400 af of from Firebaugh Canal Water District's (FCWD) Exchange Contract CVP supplies to San Luis Water District and/or Westlands Water District in April through September 2009. FCWD would pump up to 15 cubic feet per second (cfs) (up to a total of 30 af/day) of groundwater to meet their internal in-district demands in lieu of taking surface water deliveries dedicated to FCWD under the San Joaquin Exchange Contractor's contract. This water would be discharged into FCWD's Intake Canal and would not be delivered into Mendota Pool. The additional 30 af/day of water which would be left in the Mendota Pool would be used by Reclamation to meet its other obligations in the Mendota Pool and in exchange 30 af/day of water would be delivered to SLWD and WWD off of the San Luis Canal (SLC).

I concur the proposed action does not affect Indian Trust Assets.

Patricia